

LISTING OF CLAIMS:

{CLAIM 1} Claim 1. (Currently Amended) A valve device comprising:

a valve housing body having a passage for fluid;

a valve guide arranged in the valve housing body;

a valve stem sliding in the valve guide to open and close a valve; and

a scraper provided on a passage side of the valve guide, the scraper having a truncated cone-cutting edge.

{CLAIM 2} Claim 2. (Currently Amended) The valve device according to claim 1,

wherein an inner diameter of the scraper is 0.2 - 1.0 mm larger than an outer diameter of the valve stem.

{CLAIM 3} Claim 3. (Currently Amended) The valve device according to claim 1 or 2,

wherein a distance between an end of the scraper and a passage side end of the valve guide is longer than a stroke of the valve.

~~[CLAIM 4]~~ Claim 4. (Currently Amended) The valve device according to claim 1 or 2, wherein

an outer diameter of the valve stem is smaller in a section corresponding to the scraper than in a section corresponding to the valve guide; and

an inner diameter of the scraper is equal to an outer diameter of the valve stem in a section corresponding to the valve guide.

~~[CLAIM 5]~~ Claim 5. (Currently Amended) The valve device according to ~~any one of claims 1 to 4~~ claim 1,

wherein a seal member that applies gripping force onto an outer circumference of the valve stem is provided at a passage side end of the valve guide.

~~[CLAIM 6]~~ Claim 6. (Currently Amended) The valve device according to ~~any one of claims 1 to 5~~ claim 1,

wherein the fluid is exhaust gas recirculated to an internal combustion engine for performing EGR, and the valve device is an EGR valve.

~~[CLAIM 7]~~ Claim 7. (Currently Amended) An EGR valve device comprising:

a valve housing body;

a hydraulic actuator provided on the valve housing body to

open and close a valve;

an electromagnetic proportional actuator provided on the valve housing body; and

a hydraulic control valve advanced and retracted by the electromagnetic proportional actuator, the hydraulic control valve controlling hydraulic pressure acting on the hydraulic actuator by balancing a force of the electromagnetic proportional actuator and a hydraulic force; wherein

the hydraulic actuator and the hydraulic control valve are integrated with the valve housing body.

~~CLAIM 8~~ Claim 8. (Currently Amended) The EGR valve device according to claim 7, wherein

the valve housing body is separated into a valve section including the valve and a drive section including the hydraulic actuator and the hydraulic control valve; and

fixing sections for the valve section and the drive section are provided on a circle around an axis of the valve.

~~CLAIM 9~~ Claim 9. (Currently Amended) The EGR valve device according to claim 7 or 8,

wherein the hydraulic actuator is provided with a stopper for preventing a piston from disengaging from a hydraulic cylinder.

~~CLAIM 10~~ Claim 10. (Currently Amended) The EGR valve device according to ~~any one of claims 7 to 9~~ claim 7, wherein

the hydraulic actuator is a reciprocating-piston type hydraulic actuator;

the hydraulic control valve is a spool hydraulic control valve; and

the hydraulic actuator and the hydraulic control valve are arranged in parallel with a same advancing/retreating direction.

~~CLAIM 11~~ Claim 11. (Currently Amended) An EGR valve device comprising:

a valve housing body;

a valve guide provided inside the valve housing body for guiding a slide movement of a valve stem; and

a nozzle arranged toward the valve guide and having an orifice for jetting cooling oil.

~~CLAIM 12~~ Claim 12. (Currently Amended) The EGR valve device according to claim 11, wherein

a hydraulic pressure supplied to the nozzle is generated by an internal combustion engine equipped with the EGR valve device during an operation of the internal combustion engine.

{CLAIM 13} Claim 13. (Currently Amended) The EGR valve device according to claim 11 or 12, further comprising:

a hydraulic actuator for opening and closing a valve; and

a hydraulic control valve for controlling the hydraulic actuator; wherein

a hydraulic pressure supplied to the nozzle is a hydraulic pressure branched from a hydraulic circuit for supplying the hydraulic pressure to the hydraulic control valve.

{CLAIM 14} Claim 14. (Currently Amended) The EGR valve device according to claim 11 or 12, further comprising:

a hydraulic actuator for opening and closing a valve; and

a hydraulic control valve for controlling the hydraulic actuator; wherein

a hydraulic pressure supplied to the nozzle is a hydraulic pressure branched from a hydraulic circuit connecting the hydraulic actuator and the hydraulic control valve.